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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/649,376

08/26/2003

Joan Rosell

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EXAMINER

KIM, CHRISTOPHER S

ART UNIT

PAPER NUMBER

3752

MAIL DATE

DELIVERY MODE

10/10/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/649,376

Applicant(s)

ROSELL ET AL.

Examiner

Christopher S. Kim

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/29/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Species B, Figure 3 in the reply filed on May 3, 2007 is acknowledged. The traversal is on the ground(s) that search of all the embodiments would require searching in the same class and subclass. This is not found persuasive because applicant's assertion is unsupported by facts. Additionally, a search of the same class and subclass is not proper ground for traversal.

The requirement is still deemed proper and is therefore made FINAL.

Information Disclosure Statement

2. The information disclosure statement filed January 29, 2004 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

Use of PTO Form 892 by the applicant fails to comply with 37 CFR 1.98(a)(1).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 9-11, 13-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9-11, no specific parameter of the exit opening is defined, e.g., diameter, circumference, radius, etc. It appears the claim should read "...the diameter of the exit opening of the feed supply means is about...times the diameter of the exit orifice..."

Claims 13-15 define the size of the second channel opening relative to the size of the exit orifice of the pressure chamber. It appears that the second channel opening is formed by the exit opening at the upstream end and the exit orifice. It is uncertain how a dimension of the second channel opening is different from the exit orifice which forms part of the second channel opening.

In claim 13-15, no specific parameter of the second channel opening is defined, e.g., diameter, circumference, radius, etc.

Claims 7, 8, 16 and 17 define end result characteristics which are dependent on the structural characteristics of the device and the operating parameters. The claims fail to define any further method steps to achieve the end result. Therefore, either (1) method steps to accomplish the end result or structural features that produce the end result are missing from the claim, i.e., essential steps or structure to accomplish the

desired results as specified by the claims, or (2) the method steps explicitly identified in parent claim 1 are enough to inherently produce the end result.

In claim 16, no specific parameter of the particle is defined.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-18, 21, 22, 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Jennings (3,463,404).

Jennings discloses a method comprising:

forcing a first fluid 16 through a feeding supply means 4 and out an exit opening (downstream orifice of conduit 4 or orifice of body 1 upstream of orifice 11);

filling a pressure chamber 3 with a second fluid (gas);

forcing the second fluid (gas) toward and into the first fluid stream circumference (figures 2, 3) in a manner which reduces the circumference of the first fluid stream and breaks the stream into particles having a diameter less than the diameter of the exit opening (downstream orifice of conduit 4 or orifice of body 1 upstream of orifice 11);

allowing the second fluid (gas) to exert force on the first fluid and force particles of the first fluid out of an exit orifice 15 of the pressure chamber 3;

the pressure chamber 3 comprises a channel 3 with a first channel opening (connection opening to conduit 5) and a second channel opening 11.

Regarding claims 9-11, where the exit opening is defined by the orifice of body 1 upstream of orifice 11, the ratio of the exit opening to the exit orifice is 1.

Regarding claims 7, 8, 16 and 17, the claims are rejected under this statutory basis on the premise that the method steps defined in claim 1 would inherently produce the end result. See the rejection of claims 7, 8, 16 and 17 under 35 U.S.C. 112, second paragraph above for clarification.

7. Claims 1-18, 21-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Ganan-Calvo et al. (WO 97/43048).

Ganan-Calvo discloses a method comprising:

forcing a first fluid 16 through a feeding supply means 1 and out an exit opening 5;

filling a pressure chamber 3 with a second fluid (gas);

forcing the second fluid (gas) toward and into the first fluid stream circumference (figure 1) in a manner which reduces the circumference of the first fluid stream and breaks the stream into particles having a diameter less than the diameter of the exit opening 5;

allowing the second fluid (gas) to exert force on the first fluid and force particles of the first fluid out of an exit orifice 6 of the pressure chamber 3;

the pressure chamber 3 comprises a channel 3 with a first channel opening (connection opening to 4) and a second channel opening (between 5 and 6).

Regarding claims 7, 8, 16 and 17, the claims are rejected under this statutory basis on the premise that the method steps defined in claim 1 would inherently produce the end result. See the rejection of claims 7, 8, 16 and 17 under 35 U.S.C. 112, second paragraph above for clarification.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 7, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jennings (3,463,404).

Regarding claims 7 and 8, Jennings does not particularly disclose causing the first fluid or second fluid to move at a speed equal to or greater than the speed of sound in air. Jennings does disclose that the device is used for rocket motors. Rockets are well known to exceed the speed of sound. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have caused the first fluid and/or second fluid to move at a speed equal to or greater than the speed of sound in the device of Jennings to increase speed of the rocket.

10. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganán-Calvo et al. (WO 97/43048).

Ganan-Calvo et al. discloses, in the abstract, that the is applicable to any mechanism involving homogenous atomization of liquids. Inhaled pharmaceutically active drugs are well known in the art. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have used the method of Ganan-Calvo for inhaled pharmaceutically active drugs for homogenous atomization of liquids.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (571) 272-4905. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3752

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Christopher S. Kim
Primary Examiner
Art Unit 3752

CK